be devoid of mammalian remains. This gap, however, has been filled up by the discovery of mammalian remains in the ^Torth American Laramic formation, which seems to be clearly of Cretaceous age. Furthermore, it is held by some that the Purbeck beds are more properly to be placed with the Cretaceous, which would then necessitate the consideration under the present heading of some of the types already dealt with; and if, as is suggested in the following section, the lowest so-called Eocene beds are really referable to the Cretaceous, there is no lack of mammalian remains in that period. And, moreover, it was in that case the Cretaceous period which witnessed the evolution of the existing orders of Placental mammals. Otherwise the mammalian remains of the Cretaceous agree with those of the Jurassic. *We find remains of the Multituberculata in fragments of Plagiaulacidae and Polyniastodontidae. *Ptilodus* is a genus which has two premolars; and *Meniscoessus* is another niultituberculate from the same Laramic formation. The other detached fragments of mammals are thought by Osborn to represent both Plaeentals and Marsupials.

The Mammals **of** the Tertiary Period.—Unless the lowest beds of the earliest Tertiary period, the Eocene, such as the Torrejon of North America, should be in reality referred to the Cretaceous, there is no evidence that the modern groups of Mammalia existed before the present epoch of the earth's history. It is probable, however, that the Eutheria as a group were Mesozoic. The fossil jaws that have been considered in the last chapter may quite probably be primitive Eutherians, or even divisible, as believed by Professor Osborn, into Marsupials and Insectivores.

In the Tertiary, however, apart from the question as to the nature of the Puerco and Torrejon formations, and as to certain South American strata whose fossil contents have been investigated by Professor Ameghino, we find the first traces of mammals definitely referable to existing orders, or to be distinctly compared with existing orders. Since, however, representatives of types which have obvious relationships to modern types appear

in considerable profusion in the very earliest strata of the .Eocene, it seems clear that much remains to be discovered in beds earlier than these. Confining ourselves, however, to facts and to comparisons which can be made on more than a few lower jaws and scattered teeth, which is practically all that we